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66. (Amended) A method for enhancing recovery of bone marrow in a subject undergoing or having undergone cancer therapy, comprising:

administering to a subject undergoing or having undergone cancer therapy which damages the bone marrow an effective amount for enhancing the recovery of bone marrow of an immunostimulatory nucleic acid, having a sequence including at least the following formula:

5' X₁ X₂CGX₃ X₄ 3'

wherein C [and G are] is unmethylated, wherein X₁X₂ and X₃X₄ are nucleotides.

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71. (Amended) In a method for stimulating an immune response in a subject having a cancer, the method of the type involving antigen dependent cellular cytotoxicity (ADCC), the improvement comprising:

administering to the subject an immunostimulatory nucleic acid, having a sequence including at least the following formula:

5' X₁ X₂CGX₃ X₄ 3'

wherein C [and G are] is unmethylated, wherein X₁X₂ and X₃X₄ are nucleotides, and wherein the sequence is not palindromic.

REMARKS

Claims 42, 66 and 71 have been amended to clarify that it is only essential for the C of the CpG dinucleotide to be unmethylated. The G may be unmethylated or methylated, without any effect on the activity of the nucleic acid. Support for this amendment is found throughout the specification, where the importance of the methylation status of the C is demonstrated. For example, on page 21, lines 11-17, it is taught that mitogenic oligonucleotide sequences become nonstimulatory if the cytosine of the CpG dinucleotide was replaced by 5-methylcytosine, but that methylation of other cytosines did not reduce oligonucleotide activity. No new matter is added by these amendments.